

2.0 BOISE COUNTY PROFILE

2.1 Geography

Boise County, Idaho consists of approximately 1,908 square miles, with elevations ranging from 2,700 feet to over 10,800 feet above mean sea level (amsl). The mountainous terrain of Boise County includes the Boise River Mountains, the southern end of the Salmon River Mountains, and part of the Sawtooth Mountains. Federal or State managed lands constitute approximately 84% of the County and border much of the remaining 16% land base that is privately owned. Counties that border Boise County include Ada, Gem, Elmore and Valley Counties. (Appendix, A, Map 1 County Land Ownership.)

2.2 Current Population and Population Trends

The population of Boise County is approximately 6,670 (2000 census), which represents a 91% population increase since 1990. The county seat is located in Idaho City, Idaho. Other populated areas include the communities of Horseshoe Bend, Crouch, Garden Valley, Placerville, Centerville, Lowman, Gardena, and Grandjean. Population trends reviewed and identified in the Boise County Comprehensive Plan project another doubling of the County population by 2010, for a total expectation of over 13,000 Boise County residents. This increase in resident numbers will result in increased demand on County highways, emergency services and other County infrastructure assets.

Residential private land development in Boise County continues to increase. Some of the numerous subdivisions in Boise County include: Wilderness Ranch, Robie Creek, Duquette Pines, Star Ranch, Clear Creek, Terrace Lakes, Castle Mountain, Pine Tree Ranch, Rivers' Point, Clear Creek, Scriver Bluff, Payette River Hot Springs, Valley Hi, and Frazier Creek.

2.3 Climate

Climate in Boise County is extremely variable due to the altitude differences. Annual precipitation in Idaho City is 21.29 inches with Garden Valley registering 24 inches. Precipitation during July averages .45 inches in Idaho City and .49 inches in Garden Valley, with most summer precipitation coming in the form of thunder storms. Climate records show that for the county, 43% of moisture is received during winter months, 25% in spring, 9% in summer and 23% in the fall. Snowfall provides 30% of the total moisture. Seasonal snowfall averages: 71 inches in Garden Valley, exceeding 300 inches above 6,500 feet (mean sea level) amsl.

Summers are generally warm with temperatures averaging a high of 88 degrees Fahrenheit (°F) and a low of 44 degrees during July at Idaho City, and a high-low average of 91 and 47 °F in Garden Valley during this same period. The three official Weather Stations in Boise County were established on August 1, 1948. These are located in Lowman, at an elevation of 3,920 feet; Garden Valley, at an elevation of 3,100 feet; and Idaho City, at an elevation of 3,965 feet.

The following average readings were recorded from each site from 1971 to 2000:

High Temperature: Average of all Stations – 59.6 °F

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOT
Lowman	32.7	39.5	48.2	57.8	66.6	75.4	84.9	84.7	75.1	61.8	41.3	31	58.3
G.Valley	34.3	41.4	51.2	61	70.3	79.2	88.4	88.3	78.1	64.7	43.8	33.6	61.2
Id City	34.9	41	48	57.3	66.8	76.1	85.8	85.6	75.4	62.8	43.8	34.8	59.4

Low Temperature: Average of all Stations – 29.6 °F

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOT
Lowman	14.4	17.8	24.1	30	36.3	41.5	44.1	42.2	35.3	28.7	24	14.4	29.4
G.Valley	17.4	20.3	26.3	31.4	37.4	43.4	47	45.2	37.8	30.3	25	18.1	31.6
Id City	12.2	15	21.9	27.6	34.6	40.2	44.4	43	34.8	26.6	20.4	12.6	27.8

Precipitation: Average of all Stations – 25.07 inches

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOT
Lowman	3.57	3.11	2.5	2.18	2.03	1.5	.68	.67	1.25	1.57	3.35	3.67	26.08
G Valley	3.82	2.77	2.45	1.77	1.74	1.4	.64	.49	1.18	1.46	3.44	3.87	25.03
Id City	3.44	2.77	2.44	1.87	1.88	1.33	.67	.51	1.16	1.45	3.08	3.51	24.11

2.4 Vegetation

Boise County is dominantly a forested area, exhibiting timber species of ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), subalpine fir (*Abies lasiocarpa*), grand fir (*Abies grandis*), lodgepole pine (*Pinus contorta*) and Englemann spruce (*Picea engelmannii*). Understory within the forested areas consists of arrowleaf balsam root (*Balsamoriza sagittata*), snowbrush (*Ceanothus velutinus*), pinegrass (*Calamagrostis rubescens*), elksedge (*Carex geyeri*), creeping Oregon grape (*Berberis repens*), serviceberry (*Amelanchier alnifolia*), snowberry (*Symphoricarpos alba*), ninebark (*Physocarpus malvaceus*), wild strawberry (*Fragaria sp.*), dogbane (*Apocynum sp.*), and syringa (*Philadelphus lewisii*). Sagebrush/Grass Communities are common at lower elevations or on south and southwest aspects. The lower elevation transitions to Ponderosa Pine Forests in most of the county with some mixed fir at higher elevations on north, west and east aspects. At higher elevations Spruce/Fir and Lodgepole Pine Forests are common. Most privately owned lands are within the Sagebrush/Grass or the Ponderosa Pine vegetative areas of Boise County.

Fire has played an important role in the development of the vegetation in the County. Exclusion of fire, or mechanical treatment of the Ponderosa Pine and other forests of the County, has resulted in increased wildfire fuels accumulation, with overabundant seedlings and saplings on areas of private and public lands. This accumulation, combined with development in, or adjacent to the Ponderosa Pine forests of the County, have increased risk of economic loss by wildfire to residents of these areas. Historic large wildfires that occurred in Boise County from 1910 to 1955 have produced regenerated stands of Ponderosa Pine. These areas have been protected from wildfires and represent a fire regime condition that can yield additional large wildfires.

Invasive plant species in Boise County that were not historically present will out compete native vegetation after a wildfire. These invasive species (such as cheatgrass) cure early providing available fuel to carry wildfires at high rates of spread in steep terrain or windy conditions. The restoration of areas burned by wildfires is critical to native plant species being able to compete with invasive species. Post wildfire restoration (seeding) combined with watershed protection and soils stabilization is a priority for lands in Boise County. Vegetative restoration after large wildfires in Boise County is an added expense to land owners or managers.

The vegetation regimes in Boise County and their condition can serve as a significant factor in predicting wildfire hazard (Appendix A Map 5). Boise County Fire Regimes and Conditions displays these conditions and is correlated to the Wildland Urban Interface Watersheds Map 6.

The grass and shrub vegetation in the lower elevations of the South Fork and Main Payette River near Lowman, Garden Valley and Banks is critical winter range for deer and elk. Lower elevation portions of the Boise River along Arrowrock and Lucky Peak Reservoirs and Mores Creek are also critical big game winter range. Vegetation in Boise County is instrumental in providing stability to and preventing soil erosion.

2.5 Geology

Boise County is within the Idaho Batholith, which is a granitic intrusion of the late Cretaceous period. Only small portions of the County are level, with the predominant mountainous landscape brought about by historic uplifts, faults, fault blocks, alluvial deposits and stream cutting action that has created steep narrow canyons. About 70% of Boise County has slopes steeper than 40% (Appendix A Map 2, Boise County Topography)

2.6 Soils

There are a wide variety of soils found throughout Boise County. Surface soils are typically moderate with coarse sands weathered from granite. These sandy loams have little adhesion or cohesion. Sedimentation monitoring and mitigation can assist in stabilizing soils, especially on steep slopes. Post wildfire soil stabilization is often a high priority rehabilitation objective for large fires within the county.

2.7 Wildlife

Boise County has over 80 different species of mammals occupying the County's wide variety of habitats. The Idaho Department of Fish and Game manages wildlife populations and the USDA - Forest Service, Bureau of Land Management, U.S. Army Corps of Engineers, and Idaho Department of Lands are responsible for wildlife habitats on lands they manage. Large mammals that are found in Boise County include: mule deer (*Odocoileus hemionus*), whitetail deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), mountain goat (*Oreamnos americanus*), black bear (*Ursus americanus*), moose (*Alces alces*), mountain lion (*Puma concolor*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), wolverine (*Gulo gulo*), and gray wolf (*Canis lupus*). Other mammals within the county are snowshoe hare (*Lepus americanus*), cottontail rabbit (*Lepus sylvaticus*), red fox (*Vulpes vulpes*), badger (*Taxidea taxus*), beaver (*Castor canadensis*), pine marten (*Martes americana*), North American porcupine (*Erethizon dorsatum*), striped skunk (*Mephitis mephitis*), and several species of bats.

Upland birds present in Boise County include: blue grouse (*Dendragapus obscurus*), spruce grouse (*Falciennis canadensis*), chukar partridge (*Alectoris chukar*), gray partridge (*Perdix perdix*), California quail (*Callipepla californica*), mountain quail (*Oreortyx pictus*), ring-necked pheasant (*Phasianus colchicus*), wild turkey (*Meleagris gallopavo*). Raptor species found are: golden eagle (*Aquila chrysaetos*), osprey (*Pandion haliaetus*), prairie falcon (*Falco mexicanus*), red-tailed hawk (*Buteo jamaicensis*), wintering bald eagles (*Haliaeetus leucocephalus*). Portions of Boise County is a major raptor migration route from parts of northern North America to wintering areas in the southern United States, Mexico, and parts of Central and South America.

Over 70 species of birds associated with water are found in meadows, rivers, streams, lakes, reservoirs, and small ponds within the County. Waterfowl present include: Canada goose (*Branta canadensis*), wood duck (*Aix sponsa*), mallard (*Anas platyrhynchos*), gadwall duck (*Anas strepera*), common merganser (*Mergus merganser*), common goldeneye duck (*Bucephala clangula*), bufflehead duck (*Bucephala albeola*). Shore birds include: rails (Rallidae), killdeer (*Charadrius vociferus*), curlews (*Numenius sp.*), plovers (Charadriidae), sandpipers (Scolopacidae), yellowlegs (*Tringa sp.*), and phalaropes (*Phalaropus sp.*) common loon (*Gavia immer*) grebes (Podicipedidae), herons (Ardeidae) shearwaters (Procellariidae) cormorants (*Phalacrocorax sp.*), and American white pelican (*Pelecanus erythrorhynchos*) can also be found in the County.

Over 140 song birds are common to Boise County with more being identified each year through the Idaho Bird Observatory located adjacent to the Boise/Ada County lines. Common song birds seen in Boise County include: woodpeckers (Picidae), American robin (*Turdus migratorius*), crows and jays (Corvidae), dippers (*Cinclus sp.*) blue birds (*Sialia sp.*) hummingbirds (Trochilidae) sparrows (Hirundinidae and Emberizidae) finches (Fringillidae), grosbeaks (Cardinalidae), common raven (*Corvus corax*), waxwings (*Bombycilla sp.*), wrens (Troglodytidae), nuthatches (*Sitta sp.*), and warblers (Parulidae). Boise County also serves as a major migration route to songbird wintering areas.

2.8 Recreation

Boise County is the closest mountain recreation area to Boise, Idaho's Capital City, and to Ada and Canyon Counties. Ada and Canyon Counties contain the largest populations in Idaho, and much of this population base recreates in Boise County. As the population in counties adjacent to Boise County has increased, the recreational use of Boise County's Federal and State lands has also increased. Summer and winter recreational activities available in Boise County are also enjoyed by outdoor enthusiasts on a national, as well as international basis.

Water based recreational activities in Boise County include: boating, water skiing, fishing, rafting, kayaking, swimming, and hot springs visitation. Land based activities include, but are not limited to: camping, hiking, mountain biking, birding, hunting, snowmobiling, gold panning, snowshoeing, downhill and cross county skiing.

Bogus Basin Ski Area is located in Boise County and hosts numerous skiers during winter months; although, winter vehicle access to the ski area is through the City of Boise and portions of Ada and Boise Counties.

2.9 Bodies of Water: Rivers, Creeks, Watersheds

The main waterways in Boise County are the Main, North Fork, Middle Fork and South Fork of the Payette River, the Middle Fork and North Fork of the Boise River, the Deadwood River which enters the South Fork Payette west of Lowman, Idaho, Lucky Peak and Arrowrock Reservoir. The North Fork and South Fork of the Payette River are well known as white-water rivers. These bodies of water attract many visitors for recreation. Primary water recreational activities in Boise County are fishing, boating, whitewater rafting, kayaking, swimming, canoeing, and water skiing at Lucky Peak and Arrowrock Reservoir.

In addition to recreation, the rivers provide a water source for engines and helicopters during wildfire suppression operations. Some rivers in Boise County are easily accessible, with either a direct or adjacent road access. Other rivers or portions of rivers are located in roadless or wilderness areas. River flow rates generally peak in June with low flow rates in August and September.

Other important creeks and/or drainages in Boise County include: Grimes Creek, which drains Boise Basin; Clear Creek, a tributary to the South Fork Payette River at Lowman; Mores Creek, adjacent to State Highway 21 through and North of Idaho City. Harris Creek, adjacent to the Harris Creek county road, is a tributary to the Main Payette River at Horseshoe Bend, and Alder Creek a tributary to the South Fork Payette River at Garden Valley and is also adjacent to Alder Creek county road. Numerous other creeks and watersheds support developed areas throughout Boise County.

Watersheds in Boise County directly influence downstream water use for irrigated farm lands in Gem County and electrical power generation at Black Canyon Dam, also in Gem County. Watershed protection, stabilization, and water quality is a high priority for the County's Private, State, and Federal land managers or owners.

2.10 Transportation and Commuting

For an area of over 1,900 square miles, Boise County has a very limited network of improved highways. Timing, location, and expansion of transportation networks are important issues affecting future access.

Major routes used by commuters to Boise are: Highway 21 from Idaho City, Centerville, Placerville and the developments of Wilderness Ranch, Duquette Pines, Clear Creek, Dunnigan Creek, and Clear Creek. Highway 55 is used by commuters from Garden Valley, Horseshoe Bend, Gardena, and the numerous developments associated with them. Residents of these areas generally commute to their places of employment in Ada or Canyon counties.

The majority of vehicle transportation in Boise County occurs on one of three paved State Highways or the County highway.

- State Highway 21 (Ponderosa Pine Scenic Byway), from Boise to Idaho City, beyond Idaho City to Lowman and continuing northeast to the Boise/Custer County line on Banner Summit.

This highway, maintained by the Idaho Department of Transportation, is a 2-4 lane road from Boise to Stanley, Idaho.

- State Highway 55 (Payette River Scenic Byway) is one of the two main north/south transportation corridors for Idaho. Highway 55 comes through Ada County and enters Boise County south of Horseshoe Bend, continues north through Horseshoe Bend, along the Main Payette River, beyond Banks along the North Fork of the Payette River to the Boise/Valley County line approximately 12 miles north of Banks. This highway, maintained by the Idaho Department of Transportation, is a 2-4 lane road from Boise to McCall, Idaho.
- The Banks/Lowman Road (formerly State Highway 17) (Wildlife Canyon Scenic Byway) runs generally east/west along the South Fork of the Payette River through Garden Valley and an additional 27 miles to Lowman where it ends, meeting Highway 21.
- The Middle Fork Road is also paved from its starting point at mile post 8 of the Banks-Lowman Road for approximately 11 miles though the town of Crouch and north, adjacent to the Middle Fork of the Payette River to the border of the Boise National Forest.
- State Highway 52, is a 2-lane highway from Horseshoe Bend to Emmett, Idaho, which also sees some commuter use.

The Boise County Road and Bridge Department is responsible for maintenance, and construction of 286 miles of road. Road funds come largely from state and federal sources, augmented by timber revenues paid by the Boise National Forest. A decrease in timber revenue funds in the year 2000 resulted in a county highway maintenance budget that was 40% less than in 1997.

There is extensive use of the road system in Boise County by out-of-county traffic. The existence of Federal and State forests draws high numbers of recreational users participating in various spring, summer, fall and winter activities. The paved road transportation system in Boise County connects Ada and Canyon County residents to major recreational activities in Boise County and counties north or northeast of Boise County. Weekend traffic flow on Highway 55 and Highway 21 increases dramatically. Additional traffic control is needed on holidays at the Highway 55 junction with the Banks/Lowman Road. Boise County receives no additional funds for added maintenance or road deterioration associated with this use. There are no highway districts in Boise County except for the Middlefork of the Boise River Road, which is maintained by the Atlanta Highway District in neighboring Elmore County. The County Road and Bridge Department maintains all county roads, including the Banks/Lowman Road (formerly old Highway 17).

2.11 USDA-Forest Service Roads

The USDA-Forest Service, Boise National Forest, has built and maintained numerous two-lane gravel roads throughout the county for recreation, logging and mining. Some of these have been closed and many are currently gated with access allowed for seasonal use or during a wildfire. The Boise National Forest has recommendations and requirements for these roads, and a travel plan with requirements for the trail system and off road or trail travel.

2.12 Aviation Facilities

Boise County has no regularly scheduled commercial (passenger carrying) flights. Airstrips in Boise County are either privately or U.S. Forest Service-owned, or considered back country airstrips with grass or gravel surfaces.

A grass airstrip is located in Garden Valley, and maintained by the Idaho Department of Transportation (Division of Aeronautics). No services are available. The airstrip is snow covered during winter months. A grass airstrip is located at Warm Springs Campground northeast of Lowman on the north side of Highway 21 and the Payette River. No services are available. It is not maintained during winter months. The Idaho City airstrip is operated and maintained by the U.S. Forest Service. This is a gravel airstrip approximately 5,000 feet long, with daylight only landing, and no services. A private airstrip is located in the Horseshoe Bend area.

Garden Valley and Lowman Forest Service Stations both have heliports. The Lowman heliport is for limited use. The Garden Valley heliport is in use throughout the summer by U.S. Forest Service helicopters assigned to wildfire missions.

Most of these airstrips also exhibit increased traffic during weekends and holidays. They are also used to support various fixed and rotor-wing aircraft during large or multiple wildfire incidents.

2.13 Emergency Services

Law enforcement is provided by the Boise County Sheriff throughout the county. Law enforcement is also provided within and by the municipalities of Idaho City and Horseshoe Bend. Ambulance services are located in Idaho City, Horseshoe Bend, Mores Creek, Garden Valley, Lowman, and Placerville. Volunteer and Rural Fire Departments are located at and provide service to Idaho City, Garden Valley, Horseshoe Bend, Horseshoe Bend Rural, Lowman, Placerville, Robie Creek, Wilderness Ranch, Centerville, Clear Creek, Valley of the Pines, and Grandjean. The U.S. Forest Service, IDL and BLM provide wildfire protection in much of Boise County. (Appendix A Map 3, Protection Districts).